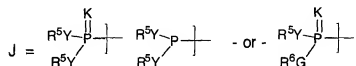


Abstract

- 10 This invention concerns a new family of phosphorus-containing compounds containing a moiety JQA- in which:

A is absent or is -O-, -S- or -NR²-;

- 15 Q is absent or (if A is -O-, -S- or -NR²-) Q may be -V-, -OV-, -SV-, or -NR²V-, where V is an aliphatic, heteroaliphatic, aryl, or heteroaryl moiety, such that J is linked to the cyclohexyl ring directly, through A or through VA, OVA, SVA or NR²VA;



K is O or S;

- 20 each occurrence of Y is independently -O-, -S-, -NR²-, or a bond linking a R⁵ moiety to P;
- each occurrence of R² and R⁵ is independently an aliphatic, heteroaliphatic, aryl, or heteroaryl moiety, or H; and
- each occurrence of R⁶ is independently -PK(YR⁵)(YR⁵), -SO₂(YR⁵) or -C(O)(YR⁵); so long as any R², or R⁵ moiety linked directly to P is not H;
- 25 wherein two R², R⁵ and/or R⁶ moieties may be chemically linked to one another to form a ring;
- each occurrence of G is independently -O-, -S-, -NR²- or (M)_x;
- each occurrence of M is independently a substituted or unsubstituted methylene moiety, and any M-M' moiety may be saturated or unsaturated;

- 30 each occurrence of x is independently an integer from 1-6; and the other variables are as defined herein.